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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,535	12/06/2000	Jerome Collin	51005.P200	2069

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EXAMINER

THOMPSON, ANNETTE M.

ART UNIT PAPER NUMBER

2825

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,535

Applicant(s)

JEROME COLLIN ET AL.

Examiner

A. M. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-15 and 22-30 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6, 16, 19, 21 and 31 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5, 17, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Applicants' Amendment and Response to Office Action has been examined. Claims 1, 7, 8, 12-15, 16, 22, 23, 27-30 are amended. The specification is amended. Claims 1-31 are pending.

1. Applicants' Amendment is persuasive and obviates many of the prior rejections and objections. However, Examiner has herein applied a new ground of rejection, not entirely necessitated by Applicants' amendment. Hence this second non-final office action on the merits issues.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of claims 1, 4, 6, 16, 19, 21, and 31

3. **Claims 1, 4, 6, 16, 19, 21, and 31** are rejected under 35 U.S.C. 102(b) as being anticipated by Giomi et al. (Giomi), U.S. Patent 5,537,580.

4. Pursuant to **claim 1** which recites [a] method for converting a data structure from a specific format (the state machines, col. 2, ll. 50-55) in a hardware description language to generic HDL elements, the method comprising receiving the data structure representing a behavior of a circuit element (the behavioral level expressions, col. 24, ll. 53-55) said circuit element being sequential (col. 7, ll. 13-26) and said data structure being defined in a hardware description language using a specific format (col. 7, ll. 26-

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45 discloses the use of HDL source code); generating a conversion matrix (state machine structural netlist, col. 2, ll. 60-63) from the data structure, said conversion matrix to represent the behavior of the circuit element in a generic format (col. 7, line 46-66); and determining a generic HDL register and a plurality of generic HDL input logic for the generic HDL register to replicate the behavior represented by the data structure based on the conversion matrix (col. 8, ll. 1-53).

5. Pursuant to **claim 4**, wherein the conversion matrix comprises a plurality of entries representing every state of the circuit element and every corresponding next state of the circuit element (col. 8, ll. 1-9).

6. Pursuant to **claim 6**, wherein generating the conversion matrix (state machine transition table, col. 4, ll. 34-58) comprises identifying input signals and an output signal of the circuit element from the data structure (col. 7, ll. 13-26); evaluating state transition for the circuit element by evaluating the data structure for a next output signal for each transition of the input signals and for each current output signal (col. 7, line 26-67); and populating entries of the conversion matrix for each state transition (col. 8, line 10-53).

7. Pursuant to **claim 16**, this independent claim incorporates limitations already rejected in independent claim 1, and additionally includes [a] machine-readable storage medium with executable instructions for the method claimed. Giomi also teaches this embodiment at col. 3, ll. 33-46 as the system for fabricating an integrated circuit would include storage media. Therefore, claim 16 is likewise rejected and includes the rationale of claim 1, *supra*.

8. Pursuant to **claims 19 and 21**, these dependent claims address the limitations already rejected in claims 4 and 6, respectively, and are likewise respectively rejected based on the same reasoning. The inclusion of a machine-readable storage medium has already been considered and rejected in independent claim 16, *supra*.

9. Pursuant to **claim 31**, this independent claim addresses limitations already rejected in claim 1, *supra*, and additionally recites the use of a processor and machine-readable storage medium. Giomi discloses this feature at col. 1 and 2. Therefore, claim 31 is likewise rejected and includes the rejection rationale of claim 1, *supra*.

Allowable Subject Matter

10. **Claims 7-15 and 22-30** are allowed.

11. **Claims 2, 3, 5, 17, 18 and 20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the PTO-892 for a complete listing.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703)306-3329.

14. Responses to this action should be mailed to:

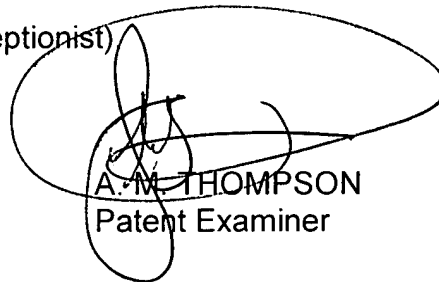
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or faxed to:

(703) 872-9318, (for **OFFICIAL** communications intended for entry)
(703)872-9319, (for Official **AFTER-FINAL** communications)

Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist)



A.M. THOMPSON
Patent Examiner

5 May 2003